

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

**ENERGY DIVISION**

**RESOLUTION E-4937**

**August 9, 2018**

**R E S O L U T I O N**

Resolution E-4937. Authorizing Southern California Edison's plan to conduct a solicitation for energy storage to comply with SB 801 (Stern)

**PROPOSED OUTCOME:**

- This Resolution approves the proposal of Southern California Edison Company (SCE), to conduct a competitive solicitation for energy storage projects operated by third parties that are capable of alleviating generation supply shortages due to Aliso Canyon, and meeting all requirements of SB 801 (Stern).
- Specifically, this Resolution adopts the solicitation design, protocols, standard pro forma contract, and evaluation criteria.

**SAFETY CONSIDERATIONS:**

- Southern California Edison Company's pro forma contract, submitted with AL 3785-E, requires independent reports from safety engineers prior to construction, and requires sellers shall operate the facilities in accordance with prudent and safe electrical practices. A detailed list of safety provisions employed by SCE are listed on Pages 7 and 8 of AL 3875-E.

**ESTIMATED COST:**

- This Resolution is expected to result in additional contracts, which could lead to increased ratepayer costs, but could also offset other costs. Actual costs of the contracts are unknown at this time.

By Advice Letter 3785-E (Southern California Edison Company), Filed on April 13, 2018.

## SUMMARY

This Resolution approves Southern California Edison's (SCE) request to hold a competitive solicitation for energy storage to meet the requirements of Senate Bill (SB) 801 (2017, Stern).

## BACKGROUND

### *SB 801 (Stern)*

SB 801 added Section 2836.7 to the Public Utilities Code, which requires the following:

(b) The commission shall, to the extent that doing so is cost effective and feasible and necessary to meet the reliability requirements of the electrical system in the Los Angeles Basin, direct an electrical corporation serving the Los Angeles Basin to deploy, pursuant to a competitive solicitation, a minimum aggregate total of 20 megawatts of cost-effective energy storage solutions to help address the Los Angeles Basin's electrical system operational limitations resulting from reduced gas deliverability from the Aliso Canyon natural gas storage facility. An electrical corporation may count any cost-effective energy storage solution that it deploys pursuant to this subdivision towards the capacity requirement established pursuant to Section 2838.2 if the cost-effective storage solution that it deploys is a distributed energy storage system, as defined in subdivision (a) of Section 2838.2.

In compliance with this directive, the Director of the Commission's Energy Division sent two letters to Southern California Edison on February 27 and March 19, 2018 directing the utility to file a Tier 3 Advice Letter with the Commission with a proposed procurement plan for the solicitation of a minimum of 20 megawatts (MWs) of cost-effective energy storage solutions to meet the objectives of SB 801.

For reference, SB 801 defines cost-effective storage systems with new Public Utilities Code § 2836.7, as follows:

(d)(1) “Cost-effective energy storage solution” means any grid-connected energy storage facility developed on or after the effective date of this section of any type or technology, including transmission-connected, distribution-connected, and behind-the-meter sited or located resources, that will mitigate the limitation on gas storage capacity and gas deliverability resulting from the well failure at the Aliso Canyon natural gas storage facility. Cost-effective energy storage solutions shall be designed to be capable of providing a four-hour duration resource adequacy service, which may include energy delivery for the full four hours at a rated output, and shall be capable of delivering electricity to the source of demand and required to accept and execute reasonable remote or centralized dispatch commands.

#### *Resolution E-4791*

There is some historical context for the Commission requiring, evaluating, and approving energy storage procurement to alleviate natural gas constraints resulting from the closure of Aliso Canyon.

In May 2016, with Resolution E-4791, the Commission required Southern California Edison to conduct an expedited procurement for both utility-owned and third party storage resources that could come online in Winter 2016, to alleviate any electric supply shortages resulting from natural gas interruptions. E-4791 also allowed San Diego Gas & Electric Company to expedite eligible energy storage projects from a related solicitation and file for approval with the Commission. As a result, Southern California Edison and San Diego Gas & Electric Company procured nearly 100 MWs of grid-level energy storage that are currently operating and contributing to reliability.

#### PROTESTS

AL 3785-E was timely protested by the Office of Ratepayer Advocates (ORA) on May 3, 2018. SCE timely filed a reply to ORA’s protest on May 10, 2018.

ORA raises several issues in its protest. Each is discussed individually, below.

*Proposed Expansion of Project Eligibility Criteria*

ORA contends that SCE does not provide sufficient justification to support expanding the eligibility criteria described in SB 801 and Resolution E-4791 to also include those located in several constrained local areas. Specifically, SCE proposes to prefer projects that can alleviate both gas and electric system reliability, and proposes targeting of storage at the following substations: Goleta, Santa Clara, El Nido, La Cienega, La Fresa, Laguna Bell, and Villa Park.<sup>1</sup> ORA requests that the Commission not approve this expansion until SCE adequately demonstrates the effectiveness of its proposed procurement at alleviating Aliso Canyon-related reliability needs.

In reply, SCE clarifies that all of its proposed targeted substations are South of Path 26, and its procurement plan otherwise meets the requirements of SB 801 as these locations would simultaneously reduce local electric demand and demand on the gas system. SCE urges the Commission to deny ORA's protest in this regard.<sup>2</sup>

*Limitation to Count Against AB 2514 Targets Alone*

ORA also argues that SCE proposes to only count any eligible storage capacity resulting from the solicitation that is the subject of this Resolution against its AB 2514 (2010) targets and not its AB 2868 (2016) targets. ORA points to SCE's claim in AL 3785 that "AB 2868 is intended for utility-owned investment and customer programs," and points out that AB 2868 contains no such restriction. ORA recommends that the Commission require SCE to apply any MWs procured against its AB 2868 target if the AB 2514 target is exhausted.<sup>3</sup>

In reply, SCE argues against ORA's claims and recommendation. First, SCE clarifies that the IOU does have a residual storage procurement obligation in 2018 and 2020, of the original 580 megawatts (MWs) assigned to the IOU in Decision (D.) 13-10-040 pursuant to AB 2514 (2010, Skinner), of 6.5 MWs in 2018.

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<sup>1</sup> SCE AL 3785-E, page 2.

<sup>2</sup> Reply of Southern California Edison Company to the Protest of Advice Letter 3785-E, Plan to Procure Energy Storage Resources Pursuant to Senate Bill 801. May 10, 2018. Pages 1-2.

<sup>3</sup> Protest of the Office of Ratepayer Advocates to Southern California Edison's Advice Letter 3785-E for Approval of its Plan to Procure Energy Storage Resources Pursuant to Senate Bill 801. May 3, 2018, page 4.

Second, SCE argues SB 801 (2017, Stern) did not preclude SCE from counting the MWs procured in this solicitation from its AB 2514 targets. Third, SCE points out that while SB 801 explicitly prohibited utility-owned storage resources, whereas AB 2868 (Gatto, 2016) allows for utility ownership.<sup>4</sup>

### *Cost-Effectiveness of Storage Procurement*

ORA points to both the requirement in SB 801 that storage be cost effective, and to SCE's explanation in AL 3785-E that the benchmark for cost effectiveness is the net present value (NPV). ORA asserts that NPV represents cost competitiveness rather than cost effectiveness, and advocates that the Commission require SCE to demonstrate that the energy storage projects it procures are cost effective.<sup>5</sup>

SCE makes several points in reply. SCE points out that the NPV methodology it proposes to use for this procurement is consistent with that it utilizes for many other procurements, including and beyond energy storage. SCE points out that the Commission has not explicitly defined a cost effectiveness standard for energy storage procurement, and that SCE has focused on maximizing the value of energy storage procurement to ratepayers while also complying with the targets set by the Commission. In its view, "...cost effective refers to the reasonableness of the value proposition to SCE's customers relative to the procurement objective."<sup>6</sup>

## DISCUSSION

### *Proposed Expansion of Project Eligibility Criteria*

SCE's proposed targeted locations for procurement are reasonable. SCE proposes to target to areas at which energy storage could provide value in alleviating grid constraints and demand on the natural gas system. We find merit in this

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<sup>4</sup> Reply of Southern California Edison Company to the Protest of Advice Letter 3785-E, Plan to Procure Energy Storage Resources Pursuant to Senate Bill 801. May 10, 2018. Pages 2-3.

<sup>5</sup> Protest of the Office of Ratepayer Advocates to Southern California Edison's Advice Letter 3785-E for Approval of its Plan to Procure Energy Storage Resources Pursuant to Senate Bill 801. May 3, 2018. Pages 4-5.

<sup>6</sup> Reply of Southern California Edison Company to the Protest of Advice Letter 3785-E, Plan to Procure Energy Storage Resources Pursuant to Senate Bill 801. May 10, 2018. Page 3.

proposed selection, as the procurement would have the greatest benefit to ratepayers while achieving the objectives of the legislation.

Specifically, the two areas are the Moorpark sub-area of the Big Creek/Ventura local reliability area and the Western LA Basin sub-area of the Los Angeles basin local reliability area. SCE has identified several 220/66 kV substations at which storage resources could assist in alleviating grid constraints. These are the Laguna Bell, Villa Park, El Nido, La Cienega, and La Fresa 220/66 kV substations.<sup>7</sup> SCE has demonstrated adequate argument that the utility has appropriately targeted locations of greatest benefit to the system, and objectives of the authorizing legislation, SB 801.

We find merit in SCE's response to ORA's concerns and reject ORA's protest in this regard.

*Limitation to Count Against AB 2514 Targets Alone*

SB 801 includes the following provision, referenced earlier in this Resolution:

Public Utilities Code § 2836.7(b), which states: "... (a)n electrical corporation may count any cost-effective energy storage solution that it deploys pursuant to this subdivision towards the capacity requirement established pursuant to Section 2838.2 if the cost-effective storage solution that it deploys is a distributed energy storage system, as defined in subdivision (a) of Section 2838.2."

Public Utilities Code § 2838.2 was created by AB 2868 (Gatto, 2016). AB 2514 (Skinner, 2010) required the Commission to adopt a procurement target for energy storage, with Public Utilities Code § 2836 and 2837, neither of which are referenced by SB 801. SCE proposes in AL 3785-E to count any storage procured pursuant to SB 801 and this Resolution against its AB 2514 targets.

The explicit reference to PU Code § 2838.2 in SB 801 indicates the intent of the legislature to allow SCE to count its SB 801 procurement against its maximum storage capacity allowance under AB 2868, and thus should not be ignored.

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<sup>7</sup> SCE AL 3785-E, page 3-4.

We find merit with ORA's recommendation. Thus, SCE is permitted to request that storage procurement conducted pursuant to SB 801 and this Resolution count against its AB 2514 procurement shortfall that exists for its 2018 solicitation only. That shortfall appears to be 6.5 MWs, which is a portion of the total minimum procurement required by SB 801. It may be appropriate for SCE to count SB 801 procurement towards its AB 2868 programs and investments in energy storage, but the requirements for that program will be determined in A.18-02-016 et al. Thus determination of eligibility of SB 801 procurement to count toward AB 2868 will be made in A.18-02-016 et al.

#### *Cost-Effectiveness of Storage Procurement*

With specific regard to ORA's protest, we agree with SCE that the net present value (NPV) calculation that it proposes in AL 3785-E is consistent with cost effectiveness valuations performed for other related procurements, and all procurements to date for energy storage. We do, however, express caution in response to SCE's claim that "SCE is authorized to choose projects for its short list and final selection that do not have the highest NPV based on the preferences set forth in Public Utilities Code sections 399.13(a)(7) and 454.5(b)(9)(D)(ii), and the Commission may approve such contracts."<sup>8</sup> While the CPUC has certainly allowed for consideration of other factors, the code sections that SCE reference are not immediately relevant for the purpose of this solicitation.

Public Utilities Code § 399.13(a)(7) is specific to the Renewable Portfolio Standard, and specifies that SCE shall assign preference to renewable energy facilities that meet certain non-economic criteria. Public Utilities Code § 454.5(b)(9)(D)(ii) explicitly relates to solicitations for new gas-fired units, and requires IOUs to give preference to non-gas fired resources that meet certain non-economic criteria. This solicitation is created by SB 801, and includes neither renewable energy nor natural gas. SB 801 requires at multiple points throughout the legislation that the procurement of resources to fulfill its objectives be cost effective, and does not include any reference to either non-monetary benefits or to the code sections referenced by SCE in AL 3785-E.

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<sup>8</sup> Ibid, page 16.

Thus, in the solicitation authorized by this Resolution, SCE is authorized to select projects without the highest NPV, if SCE can demonstrate that the projects provide higher value.

## COMMENTS

The Draft Resolution mailed on June 26, 2018. Comments were timely filed on July 16, 2018 by both SCE and ORA.

In their comments, ORA expresses support for Draft Resolution E-4937 and does not recommend any modifications.

SCE opposes two aspects of the Resolution and makes one request.

First, SCE opposes the requirement in the Resolution that SCE pick the most cost effective projects, based on net present value (NPV), and not employ the use of qualitative criteria. SCE claims that this approach is in conflict with the Commission's allowance for SCE to use the least cost best fit (LCBF) standard which permits qualitative criteria to be used in bid selection.

Second, SCE claims that the Resolution's requirement that SCE count any capacity procured pursuant to this Resolution against its AB 2868 targets, following exhaustion of current AB 2514 procurement shortfalls, is unlawful. The basis of SCE's argument is that the legislature did not intend for the term "investments," as contained in AB 2868, to also mean "procurement" of energy storage contracts from third parties. SB 801 defines an eligible storage system as one that is owned and operated by third parties. SCE also claims that the determination made in this draft resolution is "in violation of the Legislature's prohibition that 'no action by the commission shall discourage or disadvantage development and ownership of an energy storage system by an electrical corporation'". A few points of response, follow.

- First, nothing in AB 2868 defines "investments" as exclusively utility owned systems. The legislature had, and has, full ability to explicitly define investments to comport with a desired outcome. The legislature



- did not do so here. Of AB 2868 and SB 801, only one of these two bills explicitly defined eligible project ownership structure – SB 801.
- Second, although SCE’s comments propose a distinction between the terms “investments” and “procurement,” the text of SB 801 refers instead to the “capacity requirement” established pursuant to AB 2868. In other words, the text of SB 801 is broader than SCE argues and indicates legislative agnosticism to whether the storage capacity is utility or third party owned.
  - Third, nothing in AB 2868 or SB 801 prevents the Commission from exercising its broad authority to interpret its language to allow for both third party owned and utility owned resources.
  - Fourth, no determination has been made by the Commission to interpret the language of AB 2868 to allow for a particular ownership structure.
  - Fifth, SB 801 explicitly references sections of code added by AB 2868, and not those relevant to AB 2514 procurement.
  - Sixth, given that neither the legislature nor this Commission has yet defined “investments” in this context to only include utility owned projects and exclude those owned by third parties, we do not agree that this Resolution interferes with the right of a utility corporation to own energy storage assets.

We clarify, however, that we make no definitive determination here, as the question of AB 2868 implementation is currently a topic within the scope of the IOUs’ 2018 energy storage applications.

We do agree, however, with SCE’s claim that only storage resources interconnected to the distribution system should be counted against AB 2868 targets, as transmission interconnected storage is clearly not eligible for AB 2868. We clarify here that SCE may only count storage resources procured pursuant to SB 801 and this Resolution against its AB 2868 targets if those resources are interconnected to the distribution system. We do not make changes to the discussion in this Resolution or to the Findings or Orders, as it is already specified that the procurement must meet the requirements of AB 2868, which includes that the resource must be interconnected to the distribution system.

Third, SCE requests the authorization to conduct the solicitation in August. We clarify that SCE is authorized to initiate the solicitation within thirty days from the Commission vote on this Resolution. This Resolution does not prescribe a specific date when SCE must initiate the solicitation authorized by this Resolution.

## FINDINGS

- 1) SB 801 required the Commission to direct SCE to procure cost effective energy storage resources that can alleviate natural gas shortages resulting from Aliso Canyon. The Commission complied with this requirement with the issuance of two letters in February and March of 2018, which directed SCE to file an Advice Letter with its proposed procurement plan.
- 2) SCE filed its proposed procurement plan and pro forma contract with AL 3785-E on April 13, 2018.
- 3) Protest to AL 3785-E was filed by ORA on May 3, 2018. SCE filed its reply on May 20, 2018.
- 4) It is reasonable to permit SCE to target the seven substations it identifies in AL 3785-E as these locations would yield simultaneous benefits to electric reliability as well as reducing natural gas demand.
- 5) SB 801 explicitly referenced the energy storage procurement targets created by AB 2868 (2016) and not those created by AB 2514 (2010).
- 6) AB 2868 did not require utility ownership of storage projects.
- 7) It is reasonable to require SCE to count storage procurement resulting from this solicitation against any shortfall in its 2018 procurement target, as created by AB 2514 and D.13-10-040.
- 8) It is reasonable to defer to the 2018 Application proceeding to determine whether any remaining energy storage procurement resulting from this solicitation should be counted against SCE's AB 2868 capacity cap.
- 9) SCE proposes to utilize an NPV methodology that is consistent with that utilized in other related procurements, including and beyond energy storage.

- 10) SB 801 requires any energy storage procurement resulting from the legislation to be cost effective.
- 11) It is reasonable to permit SCE to select the projects without the highest NPV in this solicitation, if SCE demonstrates the projects provide greater value to ratepayers.
- 12) SCE's request to file any contracts that result from this solicitation for approval by a Tier 3 Advice Letter is reasonable.

THEREFORE IT IS ORDERED THAT:

- 1) Except for the modifications described in this Resolution, SCE AL 3785-E is approved in its entirety.
- 2) SCE is required to first propose to count any storage procurement against any remaining 2018 obligation, per AB 2514 (2010).
- 3) SCE is permitted to select the projects without the highest NPV in this solicitation, if SCE demonstrates the projects provide greater value to ratepayers.
- 4) SCE is required to file any contracts that result from this solicitation for Commission approval by a Tier 3 Advice Letter.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on August 9, 2018, the following Commissioners voting favorably thereon:

/s/ ALICE STEBBINS  
ALICE STEBBINS  
Executive Director

MICHAEL PICKER  
President

CARLA J. PETERMAN

Resolution E-4937  
SCE AL 3785-E/RCL

August 9, 2018

LIANE M. RANDOLPH  
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Commissioners